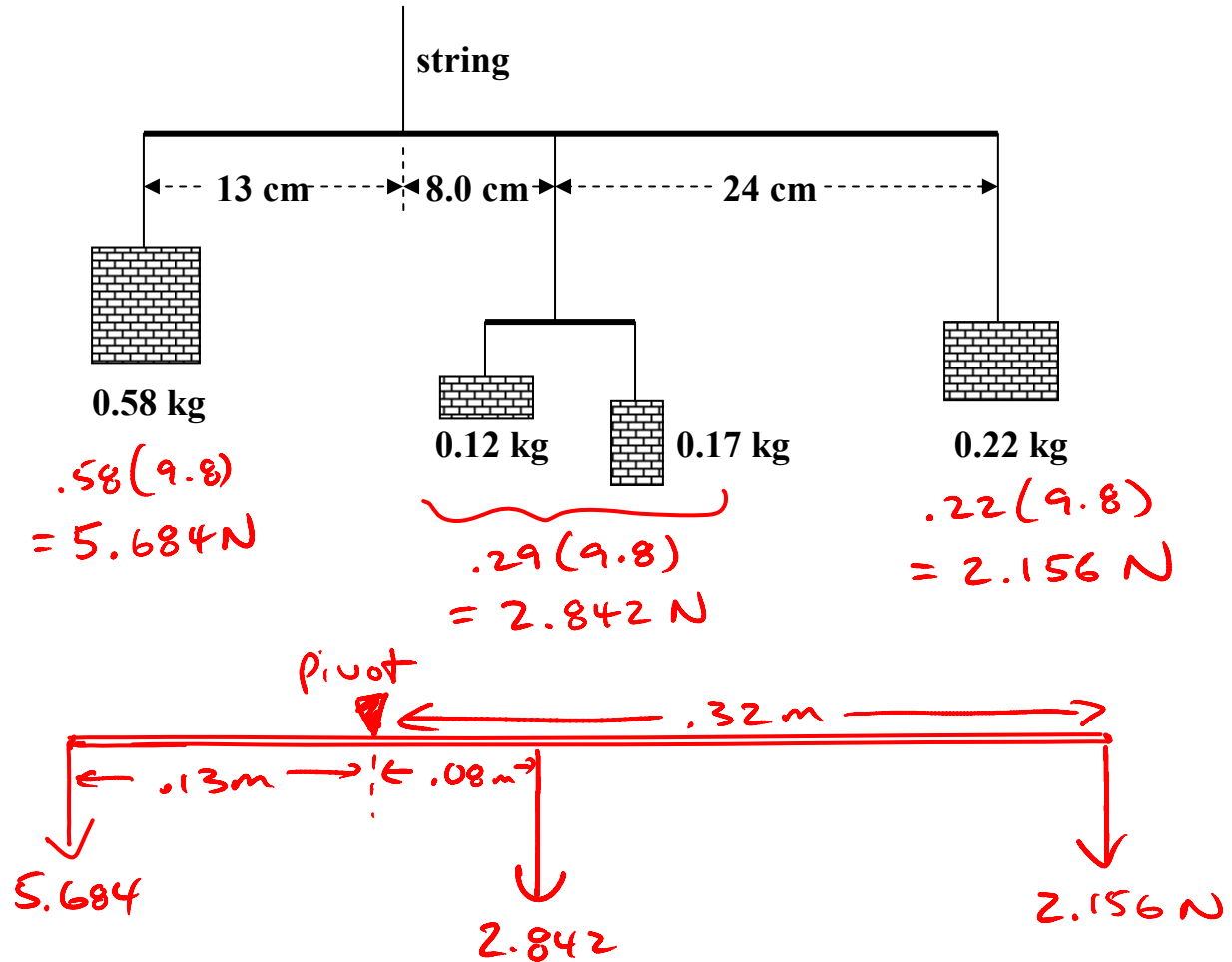


Example #8. A group of physics students attempt to balance a mobile unsuccessfully. Examine the diagram below and calculate the net torque on the large beam that will cause the mobile to start tilting in one direction once it is hung up.



$$\tau_{cw} = 2.842(.08) + 2.156(.32)$$

$$= 0.91728 \text{ N}\cdot\text{m}$$

$$\tau_{ccw} = 5.684(.13)$$

$$= 0.73892 \text{ N}\cdot\text{m}$$

$$\tau_{\text{net}} = 0.18 \text{ N}\cdot\text{m} \text{ cw}$$